

REMARKS

Applicant requests reconsideration and allowance of the present application in view of the foregoing amendments and following remarks. No new matter is introduced through said amendments.

Claims 1-5 and 18-20 are pending in the present application.

Favorable consideration is respectfully requested.

Claims 1-5 and 18-20 are rejected under 35 U.S.C. 102(b) as being taught by U.S. Patent Number 5,928,356, Golliver et al., (herein referred to as Golliver).

Golliver relates to a method and apparatus for selectively controlling groups of registers and describes a control logic coupled to the plurality of registers, to selectively control the plurality of registers by group based at least in part on a plurality of indicators. See Golliver, Abstract.

Claim 1 is amended to recite an evacuation unit configured to record identification data identifying a first program as relating to information stored in a given area of the plurality of areas if the given area is used for execution of the first program, and to evacuate information stored in the given area if the given area used by the first program is necessary for execution of a second program, said information being evacuated to a portion of said memory that corresponds to the first program.

As Golliver uses only the dfl and dfh bits to indicate whether the floating point registers of the respective groups are currently disabled, the Applicants respectfully submit that Golliver fails to describe at least the recitation of currently amended claim 1 of recording identification data identifying a first program as relating to information stored in a given area of the plurality of areas if the given area is used for execution of the first program.

With the arrangement of Golliver using dfl and dfh bits, Golliver cannot avoid needless context switching as described as follows. When a task switch occurs from a first program to a second program, a context switch occurs in Golliver with respect to some basic registers (such as general purpose registers) which the Office Action correlates to the first area of claim 1 of the present application, so that these basic registers of Golliver are updated with a new context for the second program. Upon this context switch, further, the dfl and dfh bits of Golliver are set with respect to the floating point registers which the Office Action correlates to the second area of the present application (see Fig. 5 and the relevant description in column 5, lines 4 to 17).

Further, if the floating point registers of Golliver are not accessed by the second program during the execution of the second program, the floating point registers are not updated (see Fig. 4 and the relevant description in column 5, lines 18 to 41). When a task switch from the second program to the first program subsequently occurs in Golliver, a context switch occurs with respect to the basic registers, so that the basic registers are updated with a new context for the first program. Upon this context switch in Golliver, again, the dfl and dfh bits are set with respect to the floating point registers. The first program then accesses the floating point registers. In this case, since the dfl and dfh bits are set in Golliver, a context switch occurs for the floating point registers despite the fact that these floating point registers still store information for the first program.

Accordingly, Applicants respectfully submit that Golliver fails to describe at least the recitation of currently amended claim 1 of an evacuation unit configured to record identification data identifying a first program as relating to information stored in a given area of the plurality of areas if the given area is used for execution of the first program, and to evacuate information stored in the given area if the given area used by the first program and a second area of said plurality of areas are necessary for execution of a second program, said evacuation unit subsequently evacuating information stored in the second area when use of the second area becomes actually necessary for execution of the second program, said information being evacuated to a portion of said memory that corresponds to the first program.

Additionally, the Applicants respectfully submit Golliver fails to describe at least the recitation of currently amended claim 1 of a restoration unit configured to restore, to a first area of the plurality of areas, a first part of information necessary for execution of the second program, to mark the first area as a usable area while marking areas other than the first area as unusable areas, to restore, to a second area of the plurality of areas, a second part of the information necessary for execution of the second program if execution of the second program needs to use an area that is marked as an unusable area, to restore to the first area the information evacuated from the first area based on the identification data when the second program comes to a halt or to an end, and to determine based on the identification data whether to restore to the second area the information evacuated from the second area.

Although the above comments are specifically directed to currently amended claim 1 for example, it is respectfully submitted that the comments would be helpful in understanding various differences of various other claims over the cited references.

In view of the above, it is respectfully submitted the rejection is overcome.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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